

REMARKS

Claims 1-10, 12, and 17-26 are pending with claims 11 and 16 being canceled and claims 23-26 being added.

Drawing Objections

Attached are corrected drawings to obviate this objection. Consequently, applicants respectfully submit that this objection should be withdrawn.

Double-Patenting and Claim Amendments

Claim 16 has been deleted to obviate this ground of rejection. In addition, applicants have amended claim 1 to define a liquid crystal display instead of plural displays. Applicants respectfully submit that this change does not narrow the scope of claim 1.

In addition, the term --retarder-- has been inserted after "O plate" or "A plate" in claims 7-10 and in the substantive features of claim 11, which have been incorporated into claim 1, as discussed below. Applicants respectfully submit that inserting the term --retarder-- does not narrow the scope of these claims because an A plate or an O plate are optical retarders. See the present specification at page 1, line 33--page 2, line 9. Consequently, applicants respectfully submit that these changes are merely made for consistency. Also articles --a-- and --an-- have replaced "the" to introduce articles and --plane-- has replaced "plate" and an --O-- has replaced a "0" in claim 17 to correct typographical errors. These amendments do not narrow the scope of the claims.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-12 and 16-22 stand rejected as allegedly being unpatentable over U.S. Patent No. 5,855,971 (Kobori) in view of U.S. Patent No. 5,619,352 (Koch). Applicants note that claim 1 now includes the helical pitch feature of canceled claim 11. Applicants respectfully traverse these rejections as being inapplicable to the current claims, at least.

Particularly, neither Kobori nor Koch, taken alone or in combination, teach or suggest at least one twisted A plate retarder with a twist angle ϕ of more than 90° where the helical pitch in the twisted A plate retarder is less than 250 nm.

Generally, the pitch p is given as $p = 360^\circ \cdot d / \phi$, wherein ϕ is the twist angle (in degrees) and d is the film thickness (see, e.g., page 19 of the present application). For example, a film with a twist angle of 360° (i.e., one full helical turn) has a pitch that is identical to the film thickness. If the twist angle is $> 360^\circ$, the pitch is larger than the film thickness.

Kobori at column 9, lines 1-6 teaches that the twist angle is preferably 1 to 500° , but does not teach films having a twist angle of $> 500^\circ$. To the contrary, all the examples of Kobori disclose films with a twist angle of 240° or less. See, e.g., Ex. 1: -240° , column 118, line 53; Ex. 2: $0-240^\circ$, column 120, line 63; Ex. 3: 90° , column 121, line 43; Ex. 4: 45° , column 122, line 36; Ex. 5: see column 123 and Figure 21. For example, the pitch of a film of example 4 of Kobori with a thickness of $4.1 \mu\text{m}$ and a twist angle of 45° (see column 122, lines 10 and 36) can thus be calculated as $(360^\circ \cdot 4.1 \mu\text{m} / 45^\circ) = 32.8 \mu\text{m}$.

In contrast, the twisted A plates according to the present invention generally can have a much smaller pitch and a much higher twist angle. See, e.g., examples 1 and 2 of the present application, where the twisted A plates have a twist angle ϕ of $> 5400^\circ$ or $> 7200^\circ$,

respectively. A film with a thickness of $3\text{ }\mu\text{m}$ and a twist angle ϕ of 5400° has a helical pitch of $(360^\circ \cdot 3\text{ }\mu\text{m} / 5400^\circ) = 0.2\text{ }\mu\text{m}$ or 200 nm. A film with a thickness of $4\text{ }\mu\text{m}$ and a twist angle ϕ of 7200° has a helical pitch of $(360^\circ \cdot 4\text{ }\mu\text{m} / 7200^\circ) = 0.2\text{ }\mu\text{m}$ or 200 nm.

The Action alleges that Kobori discloses twisted A plates having a pitch of $< 250\text{ nm}$ at column 116, lines 13-20. However, this passage of Kobori does not refer to the pitch, but to the retardation per pitch, which according to Kobori can be smaller than the wavelength of visible light. Generally, the retardation r is given as the product $d \cdot \Delta n$ of film thickness d and birefringence Δn . For example, on column 122, line 32 (example 4) Kobori discloses a film having a retardation of 240 nm. However, the pitch of this film is approximately $32.8\text{ }\mu\text{m}$ as discussed above.

As neither Kobori nor Koch teach twisted A plates with a pitch of $< 250\text{ nm}$, the alleged combination of Kobori and Koch cannot render obvious a compensator according to the present invention.

Restriction Requirement

In the Restriction Requirement mailed May 22, 2003, the requirement at pages 2-3 stated that there was an absence of a technical correspondence between the limitations contained in the features of claims 1 and 13. Particularly, claim 1 related to the use of a specific embodiment of a twisted A plate with a twist angle of more than 90° combined with an O plate retarder, while claim 13 related to a specific embodiment of a twisted A plate with a helical pitch of 250 nm. Furthermore, the requirement noted that a preferred embodiment of the twisted A plate with a helical pitch of 250 nm and a twist angle of 360° makes a contribution over the prior art. However, applicants note that currently presented claim 1 includes a twisted A plate retarder having a helical pitch of $< 250\text{ nm}$. Similarly, recently

canceled claim 13 defined a twisted A plate with a helical pitch of 250 nm or less. Because both of these claims include the same substantive feature, applicants respectfully submit that there is a technical correspondence between these claims. Therefore, applicants have added new claims 23-26 corresponding to canceled claims 13-15 (where claim 15 was multiply dependent on claims 13 and 14). Applicants respectfully submit that the restriction requirement is no longer applicable to the present claims.

In view of the above, favorable reconsideration is courteously requested. If there are any remaining issues which can be expedited by a telephone conference, the examiner is courteously invited to telephone counsel at the number indicated below.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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